DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

HONDURAS

IMPROVEMENT OF THE PUEBLA-PANAMA PLAN'S ATLANTIC CORRIDOR (SECTIONS OF THE CA-5 NORTE HIGHWAY)

(HO-0207)

LOAN PROPOSAL

This document was prepared by the project team consisting of Néstor Roa (RE2/FI2), Project Team Leader, César Castellón (COF/CHO), Agustín Aguerre (RE2/FI2), Diego Belmonte (RE2/FI2); Friedrich Mack (RE2/CEP); and Miguel Coronado (LEG/OPR). Yolanda Galaz (RE2/FI2) helped to produce this document.

CONTENTS

ANNEXES

BASIC SOCIOECONOMIC DATA

For basic socioeconomic data on Honduras, please refer to the following address:

http://www.iadb.org/RES/index.cfm?fuseaction=externallinks.countrydata

INFORMATION AVAILABLE IN THE RE2/FI2 TECHNICAL FILES

Preparation:

- Development of a public-private participation program in the Republic of Honduras. Ikons, December 2003.
- Study and design of the CA-5 Norte highway. Initial section to the end of the Comayagua Valley, Latinoconsult Consulting Engineers, with the cooperation of Saybe and Associates, February 2004.
- Study and design of the CA-5 Norte highway. Section from Villanueva to La Barca, Latinoconsult, BCEOM, February 2004.
- Environmental and social impact study. Latinoconsult Consulting Engineers, with the cooperation of Saybe and Associates.
- Environmental and social impact study. Section from Villanueva to La Barca. Latinoconsult, BCEOM, February 2004.
- Government Plan 2002-2006, Office of the President of the Republic of Honduras.
- Executive Summary, Economic evaluation of the project for improvement and modernization of the CA-5 highway. (Sections of the CA-5 logistical corridor between Tegucigalpa and Villanueva), prepared by UPEG-SPV, May 2004.
- Terms of reference for the design of the new system for weights and dimensions control on national highways, World Bank, 2003.
- Highway Fund: Current status and outlook, March 2004.
- Environmental and Social Management Plan (ESMP)

Execution:

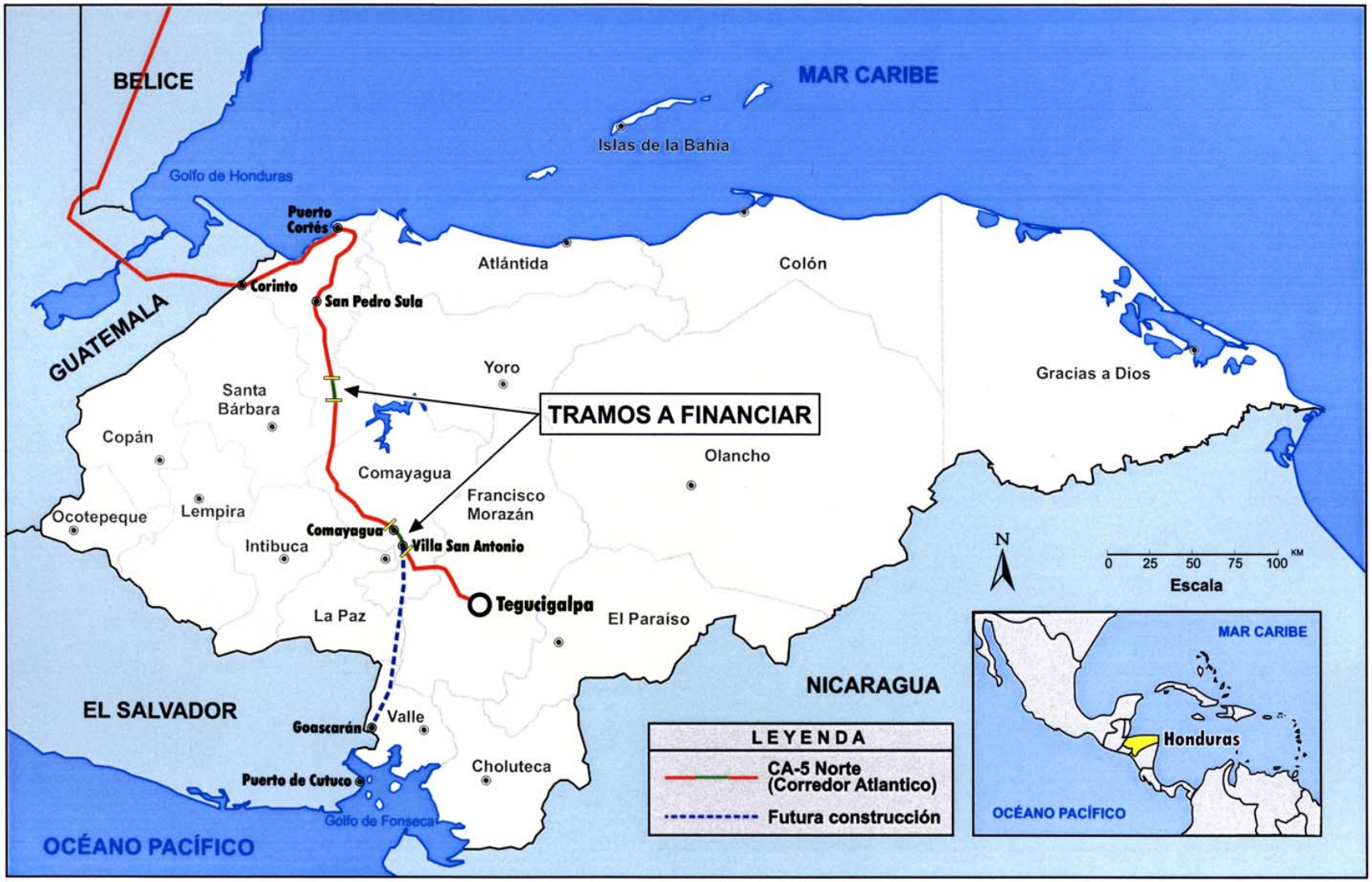
- Prequalification and bidding documents for contracting the improvement and widening of four segments included in the sections from the beginning to end of the Comayagua Valley and from Villanueva to La Barca.
- Prequalification and bidding documents for supervision of the improvement and widening of four segments included in the sections from the beginning to end of the Comayagua Valley and from Villanueva to La Barca.

ABBREVIATIONS

AADT	Annual average daily traffic
AASHTO	American Association of State Highway and Transportation Officials
AHMON	Association of Honduran Municipalities
CABEI	Central American Bank for Economic Integration
CAFTA	Central American Free Trade Agreement
CICH	Honduran College of Civil Engineers
COHEP	Honduran Council of Private Enterprise
DGC	General Directorate of Highways (SOPTRAVI)
ESMP	Environmental and social management plan
FTAA	Free Trade Area of the Americas
FV	Fondo Vial [Highway Fund]
GGPE	Project and Execution Management Group (SOPTRAVI)
ICB	International competitive bidding
IRI	International roughness index
IRT	Internal rate of return
JBIC	Japan Bank for International Cooperation
LCB	Local competitive bidding
LB	Limited bidding
NPV	Net present value
OPEC	Organization of Petroleum Exporting Countries
PCR	Project completion report
PPP	Puebla-Panama Plan
RICAM	International Mesoamerican Highways System
SEFIN	Ministry of Finance
SERNA	Ministry of Natural Resources and Environment
SOPTRAVI	Ministry of Public Works, Transportation and Housing
SOPV	Department of Public Works and Housing (SOPTRAVI)
UGA	Environmental Management Unit (SOPTRAVI)
UMA	Municipal Environment Unit
UPEG	Management Planning and Evaluation Unit (SOPTRAVI)

HONDURAS

Mejoramiento del Corredor Atlántico del PPP (Tramos de la CA-5 Norte) **(HO-0207)**



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DESIGN UNIT ITS/GSV (05.07.04)

HONDURAS

IDB LOANS

APPROVED AS OF APRIL 30, 2004

	US$Thousand	Percent
TOTAL APPROVED	2,500,004	
DISBURSED	2,040,743	81.62 %
UNDISBURSED BALANCE	459,260	18.37 %
CANCELATIONS	165,347	6.61 %
PRINCIPAL COLLECTED	730,755	29.23 %
APPROVED BY FUND		
ORDINARY CAPITAL	556,030	22.24 %
FUND FOR SPECIAL OPERATIONS	1,873,220	74.92 %
OTHER FUNDS	70,753	2.83 %
OUSTANDING DEBT BALANCE	1,309,989	
ORDINARY CAPITAL	158,735	12.11 %
FUND FOR SPECIAL OPERATIONS	1,151,037	87.86 %
OTHER FUNDS	217	0.01 %
APPROVED BY SECTOR		
AGRICULTURE AND FISHERY	301,764	12.07 %
INDUSTRY, TOURISM, SCIENCE AND TECHNOLOGY	79,872	3.19 %
ENERGY	423,922	16.95 %
TRANSPORTATION AND COMMUNICATIONS	413,252	16.53 %
EDUCATION	73,833	2.95 %
HEALTH AND SANITATION	260,752	10.43 %
ENVIRONMENT	99,542	3.98 %
URBAN DEVELOPMENT	155,573	6.22 %
SOCIAL INVESTMENT AND MICROENTERPRISE	401,190	16.04 %
REFORM AND PUBLIC SECTOR MODERNIZATION	256,752	10.27 %
EXPORT FINANCING	6,908	0.27 %
PREINVESTMENT AND OTHER	26,644	1.06 %

* Net of cancellations with monetary adjustments and export financing loan collections.

IDB
Inter-American Development Bank
Regional Operations Support Office
Operational Information Unit

Honduras

Tentative Lending Program

2004

Project Number	Project Name	IDB US$ Millions	Status
HO0212	Poverty Reduction Sector Program	30.0	APPROVED
HO0219	Financial Sector Program	25.0	APPROVED
HO0208	Strengthening of Fiscal Management	15.0	APPROVED
HO0202	Middle Education and Labor Program	30.6	APPROVED
HO0207	Improvement of the PPP Atlantic Corridor (Sections of the CA-5 Norte Highway)	50.0	
HO0222	Social Protection Program	20.0	
*HO0201	Privatization Four International Airport	22.0	
HO0224	PPP Energy Sector Support	40.0	
HO1002	Health Sector Strengthening	25.0	
HO0195	Sustainable Tourism National Program	35.0	
	Total - A : 10 Projects	**292.6**	
HO1001	Municipal Development Program Tegucigalpa II	22.5	
	Total - B : 1 Projects	**22.5**	
	TOTAL 2004 : 11 Projects	**315.1**	

2005

Project Number	Project Name	IDB US$ Millions	Status
HO0223	Fiscal Reform	25.0	
HO0174	Sanitation and Water Investment Complem.	14.0	
CA1001	Support for Infrastructure	50.0	
HO0197	Poverty Reduction Program focusing on Indigenous peoples and Afro descendants	10.0	
HO0192	Credit Global Program	30.0	
RG0059	Etnoturisticos Mesoamericanos Fund Projects	30.0	
	Total - A : 6 Projects	**159.0**	
HO1005	Rural Reactivation	30.0	
	Total - B : 1 Projects	**30.0**	
	TOTAL - 2005 : 7 Projects	**189.0**	
	Total Private Sector 2004 - 2005	**22.0**	
	Total Regular Program 2004 - 2005	**482.1**	

*** Private Sector Project**

INTERAMERICAN DEVELOPMENT BANK
ITS/ITC

HONDURAS

STATUS OF LOANS IN EXECUTION

AS OF APRIL 30, 2004

(Amount in US$ thousands)

APPROVAL PERIOD	NUMBER OF LOANS	AMOUNT APPROVED*	AMOUNT DISBURSED	% DISBURSED
REGULAR PROGRAM				
Before 1998	4	58,960	48,382	82.06 %
1998 - 1999	6	183,616	99,754	54.33 %
2000 - 2001	14	225,790	74,221	32.87 %
2002 - 2003	9	145,100	3,758	2.59 %
2004	2	55,000	0	0.00 %
PRIVATE SECTOR				
2002 - 2003	1	13,700	0	0.00 %
TOTAL	36	$682,166	$226,115	33.15 %

* Net of cancellations. Excludes export financing loans.

IMPROVEMENT OF THE PUEBLA-PANAMA PLAN'S ATLANTIC CORRIDOR (SECTIONS OF THE CA-5 NORTE HIGHWAY)

(HO-0207)

EXECUTIVE SUMMARY

Borrower:	Republic of Honduras	
Executing agency:	Ministry of Public Works, Transportation and Housing (SOPTRAVI)	
Amount and source:	IDB (FSO):	US$50.0 million
	Local:	US$ 6.2 million
	Cofinancing (see 2.10):	US$ 7.0 million
	Total:	US$63.2 million
Terms and conditions:	Amortization period:	40 years
	Grace period:	10 years
	Disbursement period:	4 years maximum, 3 years minimum
	Interest rate:	1% for the first 10 years, 2% thereafter
	Inspection and supervision:	1%
	Credit fee:	0.5% annual, on undisbursed balances
	Currency:	United States dollars or the equivalent in other currencies, except that of Honduras

Objectives: The general objective is to make Honduras more competitive and support the process of integration with countries of the Puebla-Panama Plan (PPP) by improving transportation conditions and reducing operating costs, travel times and accident rates in highway transportation. The specific objectives of the project are: (i) to improve the conditions for transporting passengers and merchandise on the CA-5 Norte; and (ii) to improve road safety on the PPP highway system in Honduras.

Description: The project has been structured in two components. The first calls for investment to resurface and widen two critical sections of the CA-5 Norte highway, the first running the length of the Comayagua valley (24.7 km), and the second running from Villanueva to La Barca (25.5 km). The second component consists of designing and implementing a road safety program for the PPP highway system in Honduras, including the CA-5 Norte highway (see 2.3).

The Bank's country and sector strategy:

The project is consistent with the Bank's sector strategy, in that it will help to resurface and widen the country's existing road systems. It also fits with the Bank's competitiveness strategy, by helping Honduras to improve its economic climate and enhance its productivity. The project will contribute to the country strategy with Honduras, which seeks to support the government in reducing poverty by promoting sustainable, competitiveness-driven growth. By reducing transportation costs, the project will have a positive impact on the competitiveness of Honduran industry. Improved competitiveness will also strengthen the country's linkages with other external markets (see 1.41).

Coordination with other agencies:

During preparation of the loan, the project team worked closely with other agencies that are now, or will be, involved in investments in the CA-5 Norte. The project has also been coordinated with other entities, under the PPP transportation initiative. As well, a mechanism has been designed for use in the execution stage to disseminate information on various projects among the international agencies involved, and to identify promptly any critical aspects that could affect the normal progress of those investments (see 1.49).

Environmental and social review:

The Bank's Committee on Environment and Social Impact (CESI) reviewed this operation at its meetings of 6 February 2004 and 28 May 2004, and its recommendations have been incorporated into this project report. The environmental and social impact assessments (ESIA) for the project were made public in Honduras (19 February 2004) and at the Bank's Public Information Center (25 February 2004). The project's environmental and social aspects take account of national standards for protecting and improving the environment, as well as Bank policies in this area. All of the project's identified impacts have been, or will be, mitigated, prevented or compensated. To this end, an environmental and social strategy has been designed, including actions to ensure the timely and effective introduction of the prevention and mitigation measures identified in the social and environmental impact assessments. That strategy was applied during the project preparation stage, and will continue during project execution. The environmental and social management plan (ESMP) includes an archaeological recovery program, a program for social management and public consultation, a plan for involuntary resettlement, and an environmental management plan for the construction, maintenance and operation of the project. The budgets for all these plans are included in the project budget.

Measures have been included in the design and preparation of the project to minimize resettlement. The planned routing of the roads has substantially reduced the number of persons affected, and the project

will require the resettlement of only 215 families. The resettlement plan agreed with SOPTRAVI, which is included in the ESMP, is fully consistent with Bank policy OP-710 on involuntary resettlement. As part of the project, there has been intensive consultation and planning with the communities within the project's area of influence. Project works will not affect protected areas, cultural heritage sites, or indigenous peoples.

The loan contract will provide for effective mitigation, prevention or compensation measures to be included in the bidding specifications and in the works contracts. The project calls for environmental supervision and audit.

The environmental institutional structure is considered adequate, and will be further strengthened through loan 1106/SF-HO to the UGA, to improve handling of environmental and vulnerability variables (see 4.14).

Benefits and development impact:

The main benefits of the project will be to enhance the country's competitiveness and to improve highway integration with countries of the PPP. Better transportation conditions will mean benefits for passengers as well as for domestic and import-export freight. The project is designed to reduce transportation times and costs and to improve road safety, and it is expected that, with greater competitiveness and integration, Honduras will see an increase in private investment (see 4.11).

Risks:

The project presents risks that are common to most road projects. The greatest risk is the potential for cost overruns. Detailed engineering studies have already been undertaken to mitigate this risk by eliminating any uncertainties as to the required budgets and quantities of work. Progress was also made during project preparation on rights-of-way, to ensure that they are in place and that the widening and improvement works can take place on time.

Another risk relates to the subsequent maintenance and sustainability of the investments. This risk may be considered mitigated to the extent that the Government of Honduras has followed a policy of earmarking increasing resources for the Highway Fund. The loan contract will include provisions for maintenance in accordance with generally accepted technical standards, and for an operations and maintenance plan designed to cover the highway's useful life. The operations and maintenance plan will clearly distinguish between the responsibilities of the Highway Fund and those of the concessionaire that takes over the public-private partnership for the CA-5 Norte.

The risk that SOPTRAVI will lack the institutional and execution capacity to administer the Honduran highway system has been substantially overcome through a major structural reform of the ministry, with Bank support. To contribute to institutional sustainability, the project's execution structure calls for retaining the project management tools developed under operation 1106/SF-HO. In addition, the GGPE (Project and Execution Management Group of SOPTRAVI) will be strengthened in its ability to handle the bidding processes for the project by contracting specialized and independent evaluators with funds from the project.

Special contractual conditions:

Special conditions precedent to the first disbursement: The borrower, through SOPTRAVI, will present to the Bank's satisfaction: (a) evidence that the project management and monitoring firm has been selected (see 3.3); (b) evidence that the Project Coordinator has been contracted (see 3.3); (c) evidence that the required funds have been allocated, incorporated, and transferred to the SOPTRAVI budget for the acquisition of legal possession, rights-of-way and other rights (see 3.8); and (d) evidence that the Environmental Management Unit has been organizationally relocated (see 4.24).

Special contract execution conditions: (a) Notice of tenders with a commitment to deliver to the Bank, before the respective works contract is signed, evidence of legal possession, rights-of-way, and other rights to the affected property needed to begin work, along with evidence of implementation of the project environmental and social strategy and, especially, of the resettlement plan agreed with the Bank for the inhabitants of the affected property (see 3.10 and 4.19); (b)) a commitment to properly maintain the works and equipment covered by the project in accordance with generally accepted technical standards, and to provide the Bank with annual reports on operation and maintenance of the finished works (see 3.4); (c) a commitment to provide the Bank with annual maintenance reports on the SOPTRAVI highway system (see 3.6); (d) a commitment to deliver to the Bank, within 12 months after the effective date of the loan contract, the diagnostic assessment report and an action plan for controlling truck weights and dimensions on the CA-5 Norte highway (see 3.7); (e) a commitment to establish, within 12 months after the effective date of the loan contract, a mechanism for coordination, dialogue, and exchange of up-to-date information among the financial institutions and development agencies involved in financing the CA-5 Norte highway (see 3.27); (f) a commitment, during the loan disbursement period and in the event of a decision to grant a concession for all or a section of the CA-5 Norte highway, to deliver the concession strategy to the Bank prior to the respective notice of public tender (see 3.5); (g) a commitment to hold annual project supervision and monitoring

meetings with the Bank no later than 30 September of each calendar year during the loan disbursement period (see 3.16); and (h) a commitment to deliver to the Bank: (1) the adjusted baseline values and a description of the calculation or adjustment procedure, within six months after the effective date of the loan contract, (2) the six-monthly values and outcomes for the quantitative variables for the project, starting in year one after the effective date of the loan contract and on a semiannual basis through year four after the last disbursement, (3) a midterm evaluation report in year four after the effective date of the loan contract, and (4) an ex post evaluation report on the project outcomes, five years after the last disbursement (see 3.24).

Poverty-targeting and social sector classification: This operation does not qualify as a social equity enhancing project as described in the indicative targets mandated by the Bank's Eighth Replenishment (document AB-1704), nor does it qualify as a poverty-targeted investment (PTI). Nevertheless, its impact on economic growth will serve the poverty reduction strategy (see 4.13).

Exceptions to Bank policy: See Procurement.

Procurement: International competitive bidding (ICB) will be used for works contracts in excess of US$2 million; consulting contracts in excess of US$200,000; and goods purchases in amounts exceeding US$250,000. Procurement involving amounts below these thresholds will be governed by local legislation (see 3.11).

For technical reasons and for the continuation of services, direct contracting without competition is recommended for the IDB projects coordinator at SOPTRAVI, currently being funded with resources from loan 1106/FS-HO (see 3.13).

I. FRAME OF REFERENCE

A. The PPP Atlantic Integration Corridor and the CA-5 Norte Highway

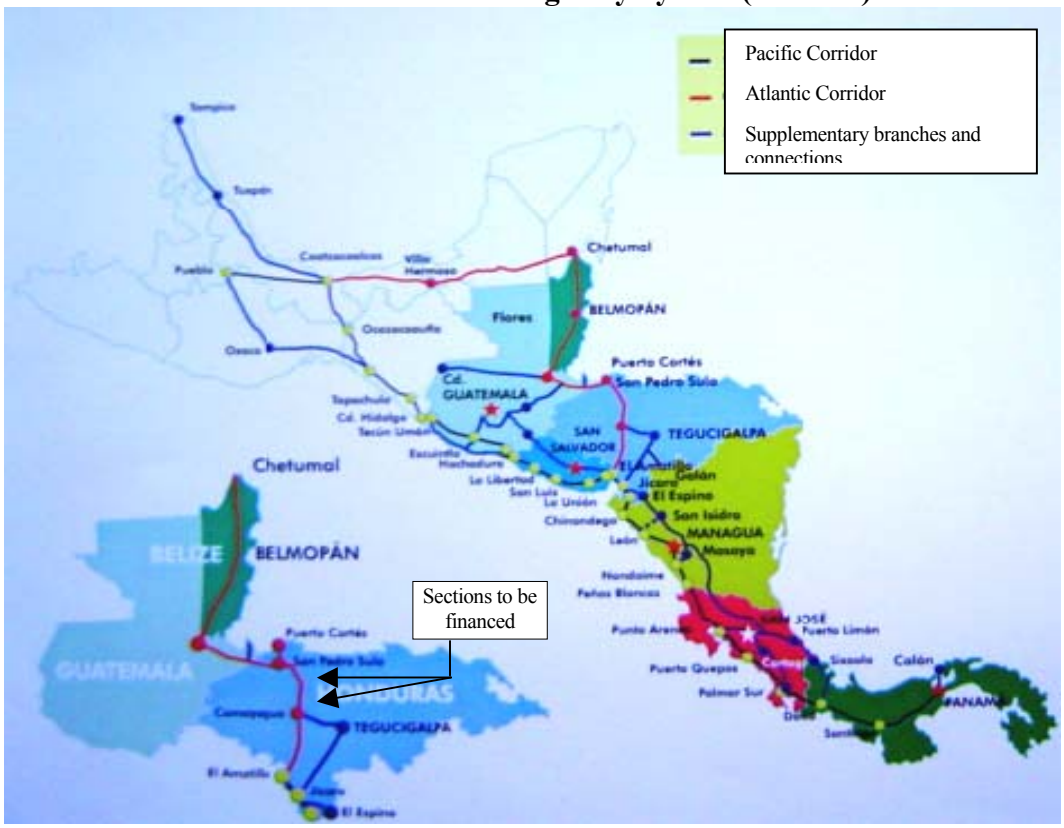
1.1 The transportation infrastructure of the Puebla-Panama Plan's Atlantic Corridor is vital to the competitiveness of Honduras and of Mesoamerica. This 1,745 km corridor links Mexico, Belize, Guatemala, Honduras and El Salvador. In Honduras it includes portions of the CA-5 Norte highway, sections of which are to be upgraded with this loan. The CA-5 Norte links up at its southern end with the future highway from Villa San Antonio to Goascorán, connects with El Amatillo (at the frontier with El Salvador), and from there to the port of Cutuco in El Salvador (see map of the Atlantic Corridor, Figure I-1).

1.2 The stretch of the highway through Honduras provides access for freight shipments to and from Puerto Cortés, Central America's only deepwater port and one of the best equipped, with the capacity to handle 10 ships at its loading and unloading facilities. The importance of this corridor is even greater when viewed in the regional context, since it will connect Puerto Cortés with the future port of Cutuco in El Salvador. This new deepwater port will be equipped to modern port specifications, with an area of some 120 hectares, a depth of 14 meters, and a port terminal of nearly 30 hectares. The El Salvador-Honduras section of the corridor continues at its northern end with a stretch running nearly parallel to the Caribbean Sea, providing access to major ports such as Puerto Barrios in Guatemala and consumption centers such as Belmopan in Belize, before entering Mexico and ending at the port of Coatzacoalcos, where it feeds into the Mexican highway system.

1.3 The complementary nature of the highway and port infrastructure along the Atlantic corridor is repeated in the Pacific corridor and its branches and connections, which make up the International Mesoamerican Highway System (RICAM). The member countries of the PPP have themselves identified the RICAM and given priority to domestic investments for enhancing the connectivity and competitiveness of their economies. To date, financing in excess of US$3 billion has been lined up under the PPP framework for resurfacing and improvements along the 9,000 km of the RICAM highway system. In addition, other regional transportation integration activities are underway as part of the PPP Transportation Initiative[1] for harmonizing transportation regulations and standards, modernizing customs procedures and border crossings, and strengthening airport security.

[1] The PPP strategy focuses on eight initiatives, with their component projects, in: (1) sustainable development; (2) human development; (3) natural disaster prevention and mitigation; (4) tourism promotion; (5) trade facilitation; (6) transportation; (7) electrical interconnection; and (8) integration of telecommunications services.

Figure I-1
International Mesoamerican Highway System (RICAM)



B. The transportation sector in Honduras

1. The CA-5 Norte and the Honduran road system

1.4 Honduras has a road system of 13,603 km, of which the main road system accounts for 3,199 km (23%), secondary roads 2,565 km (19%), and feeder roads 7,839 km (58%). The main road system is paved over 76% of its length, and the secondary system over 14%.[2] The 294-km CA-5 Norte highway is part of this system and carries most of Honduras's import and export traffic from Puerto Cortés to the major consumption and production centers in the cities of San Pedro Sula, Comayagua and Tegucigalpa. The CA-5 Norte accounts for 23% of highway traffic volume measured on a vehicle-kilometers basis, although it represents only 5% of the system by length. The CA-5 Norte was built in the late 1960s and needs substantial improvements after more than 30 years in service. On some stretches, service levels have declined drastically and maintenance has become uneconomical

[2] Of all main and secondary roads, 70% were built with asphalt paved concrete, 22% with double surface treatment, and 8% with hydraulic concrete.

for an annual average daily traffic (AADT) volume that varies between 4,500 and 6,500 vehicles, with a high proportion (around 35%) of heavy vehicles.

1.5 Road safety on the CA-5 Norte and on the Honduran highway system as a whole is poor. While there is no systematic collection and monitoring of accident data, it is estimated that there are perhaps 7,000 accidents every year resulting in some 700 deaths. Studies suggest that the roots of this problem lie in institutional shortcomings, inadequate management, and the consequent lack of investment in road safety over the years. Sustainable solutions to the problem will require comprehensive action over the medium and long term. Since 2001, with the support of the Bank and other financial and development institutions, SOPTRAVI has been conducting studies, negotiations and interventions as the first phase of a road safety plan, including a diagnostic assessment, ad hoc campaigns, and ongoing efforts to raise public awareness of this serious problem. The next step will be to introduce management measures and investments of more widespread impact. In particular, studies have recommended that investment efforts be focused on vertical and horizontal signage along key stretches of the Honduran system.

2. SOPTRAVI

1.6 The Ministry of Public Works, Transportation and Housing (SOPTRAVI) is responsible for formulating, coordinating, implementing and evaluating road transportation policies, public works concessions, urban development, and air, sea and land transportation, as well as the housing sector. SOPTRAVI has two departments, the Public Works and Housing Department (SOPV) and the Transportation Department. In terms of support bodies, there are the Administrative Management Office, responsible for administration of budgets, human resources, and materials and services, and the Management Planning and Evaluation Unit (UPEG).

1.7 Management responsibility for the road sector as such falls to:

(i) The General Directorate of Highways (DGC) for construction works and system management, with the support of the Project and Execution Management Group (GGPE); and

(ii) The Highway Fund (Fondo Vial, FV) for routine, periodic and emergency maintenance of the road system. The FV is an autonomous agency that began operations in 2001 with a mandate to ensure sustained financing and effective ongoing maintenance of the system.

1.8 When it comes to road safety, the responsible offices within SOPTRAVI are the Transportation Department, the DGC, the UPEG and the FV, which in turn must coordinate their activities with other, external bodies such as the police, the municipalities and the Ministry of Health.

1.9 When the current government took office it identified a series of structural problems in SOPTRAVI's management that would have to be addressed before investment levels could be increased. Those problems included shortcomings in strategic and operational planning for the sector, inadequate capacity to administer construction and improvement works contracts with the private sector, very low maintenance coverage, and management difficulties that were undermining road safety, to the particular detriment of the poorest population.

1.10 With the Bank's support, the government has addressed these management challenges with a series of steps that have already shown results. One such step was to strengthen the execution capacity of SOPTRAVI, which was saddled with an organizational structure that was administratively and operationally slow, costly and largely untransparent.

1.11 **Loan 1106/SF-HO**. This program, which has been underway since the beginning of 2003, seeks strengthen SOPTRAVI's institutional capacities for planning, contracting services, and implementing works. The program contains the following components:

1.12 *Component 1*. Institutional strengthening of SOPTRAVI, comprising the following subcomponents:

(i) **Creation and Implementation of the Project and Execution Management Group (GGPE)**. This new entity within SOPTRAVI is the focal point for the management and execution of road projects. In June 2003 this group replaced the executing unit that had been set up in the 1980s to administer the IDB's road sector loans to Honduras. The GGPE receives ongoing advisory support from an internationally experienced project management firm, to ensure project quality and compliance with schedules and budgets. SOPTRAVI has reported significant benefits from this new system, and plans to replicate it for financing from domestic and other financial institutions and development agencies.

(ii) **Multiyear investment plan**. The project was intended to design a system and to equip SOPTRAVI with the capacity for planning, formulating, and supervising road projects in general and concession projects specifically, and to manage the social and environmental dimensions of road projects.

(iii) **Restructuring the payment and contracting processes**. The intent here was to improve SOPTRAVI's contracting and contractor payment processes in coordination with the Ministry of Economy and Finance (SEFIN) and other government agencies for greater flexibility, transparency, and effectiveness.

(iv) **Optimization of human resources**. The program will finance a strategy to manage SOPTRAVI's human resources in a manner consistent with the new organizational structure.

(v) **Training and instruction**. Financing will be provided for courses, seminars, workshops and training programs for SOPTRAVI staff.

(vi) **Management of environmental and vulnerability variables**. This involved efforts to strengthen SOPTRAVI's Environmental Management Unit (UGA), so that it could assume its environmental and social responsibilities in managing road projects by conducting environmental and social impact studies in accordance with Honduran legislation.

1.13 *Component 2*. Support for the planning and design system, which comprises the following activities:

(i) **Transportation plan**. Support was provided for preparation of a strategic plan for the transportation sector as a guide for long-term investment decisions.

(ii) **Road concession feasibility studies**. Financing is being provided for a study to establish the general framework for the first concessions to be awarded for the resurfacing, maintenance and operation of the country's most heavily traveled routes.

1.14 *Component 3*. Support for the Highway Fund and road safety, through the following activities, still in execution:

(i) **Maintenance operations evaluation system**. This will allow the systematic evaluation of construction firms and their compliance with road maintenance objectives.

(ii) **Institutionalization of a road safety system**. This project is analyzing the general problem and developing a system that will cover all public and private stakeholders so as to quantify the impact and identify alternatives for combating the underlying causes. This activity also called for a road safety pilot project on sections of the CA-5 Norte, and measures to incorporate the road safety variable into the design of highway projects.

1.15 A major change has been observed in practice, more than a year into the program, in SOPTRAVI and its institutional capacity to administer the road system, and it has substantially picked up the pace of execution of operations under its responsibility. Enhancements to its planning, environmental management, and contracting systems are well along and making satisfactory progress. Additionally, these actions have better enabled SOPTRAVI to simultaneously coordinate and

execute projects funded by different financial institutions and development agencies.

3. The institutional framework for transportation and road safety

1.16 **Road safety in Honduras**. Honduras has no legislation regulating the traffic of vehicles and passengers through its territory, an activity governed by regulations issued in 1950. There is now an urgent need to formulate and approve a Traffic and Road Safety Act to fill this legal void and to establish standard, up-to-date and enforceable rules of highway conduct, define punishable offenses, etc.

1.17 With Bank financing, an international consultant worked with the Security Ministry, SOPTRAVI, and the Transportation Committee of Congress to incorporate a National Road Safety Council into the Traffic Act. The government has submitted that bill to Congress, where it was recently discussed on the floor. There is thought to be a favorable political climate for approving it during the present session.

1.18 The bill now before Congress offers a modern institutional framework for addressing the pressing problem of road safety, and provides indispensable institutional tools for improving road safety indicators. Among other measures, it calls for:

(i) **Establishing the National Road Safety Council**. The bill calls for a body with a multisectoral membership, clearly defined functions and responsibilities, and an operations manual. Congress is now debating the positioning of the Council within the government hierarchy, where it could be placed under the Ministry of Security, or as an advisory body to the President, or as an executing unit with its own resources and institutional status.

(ii) **Establishment of Road Safety Units**. These are technical units with expertise in analyzing specific situations involving roads and transportation and proposing solutions to resolve specific conflicts. There are currently three such units operating (one in SOPTRAVI and the other two in the municipios of Tegucigalpa and San Pedro Sula), and it is planned to create several others, and to give them sufficient technical capacity to fulfill their role.

(iii) **Implementation of the Accident Reporting System**. There are plans to develop a system to compile accurate and reliable information over time on accidents on national highways and urban roads. This will involve coordinating a number of public and private parties to supply, process and interpret information and to define policies for action based on that information.

(iv) **Highway safety audit**. The intention here is to institutionalize the mechanism of highway safety audits, which would involve third parties with technical expertise to analyze proposed infrastructure projects and to monitor their implementation until they are turned over to public use.

(v) **Financing for road safety**. Permanent sources of financing are being identified, and a legal framework is being prepared to facilitate the collection and utilization of such funding.

(vi) **Police enforcement of traffic laws**. Police officers and inspectors must be given training in accident prevention and backed up by a legal framework for using enforcement devices (e.g. radar, breathalyzers) and for punishing violators.

1.19 As part of the Bank-financed project (1106/SF-HO), SOPTRAVI is preparing a number of tools, including:

(i) **The Second National Road Safety Plan**. A gradual approach is clearly needed, recognizing that road safety is a cultural issue, and that it will be some time before there are visible results. For this reason, a second Safety Plan is being prepared, as a mark of determination to make further efforts at securing a dramatic improvement in poor safety indicators.

(ii) **Design and supervision of the road safety pilot project.** A pilot project is being prepared, with stages yet to be defined, for measuring the impact and feasibility of various proposed measures. It will include improvements in road construction (low-cost upgrades such as signage, acceleration and deceleration lanes, traffic circles, improvements to dangerous curves, bicycle lanes) and nonconstruction activities (social participation and awareness campaigns, publicity, etc.).

1.20 **Control of vehicle weights and dimensions**. An initial effort to control freight traffic on national roads was made in 1958, with the promulgation on 29 December of government Order 105 approving the Central American Highway Traffic Agreement that established weight and dimension specifications for transportation vehicles. Subsequently, recognizing that the vehicles traveling on the country's highways have characteristics different from those reflected in the specifications of that agreement, Regulations for the Control of Land Transportation Vehicle Weights, Dimensions and Capacity were issued in November 1976, and are still in effect.

1.21 In institutional terms, responsibility for such controls has been assigned to the SOPTRAVI Transportation Department, but it has not had the necessary equipment (it currently has 12 mobile scales, four of which are under repair) or human resources. Nor has it had an effective strategy for addressing the overall problem in

conjunction with freight shippers through such measures as inspection at point of origin or self-enforcement that might be applicable in Honduras, given the topography through which the road system passes. As a result, many trucks are traveling over the country's national highways with excess loads.[3]

1.22 As a first step toward addressing the problem, SOPTRAVI has agreed that the Highway Fund should be responsible for developing mechanisms to install the systems and the equipment needed to operate a control plan. With World Bank funding, it has contracted an international consultant to design a new system for controlling weights and dimensions on national roads. The consultant recently began this work, under terms of reference that include:

(i) A proposed legal framework to govern operation of roadside weigh stations, and a review of Central American agreements regulating heavy vehicle traffic on highways.

(ii) A traffic survey program on at least five highways representative of the Honduran road system, including origin-destination, weight samples (over six weeks, with systematic 48-hour sampling at specified points, using SOPTRAVI scales) and load stratigraphy measures.

(iii) An inventory of fixed and mobile weighscales and their condition and serviceability.

(iv) A study to propose the best alternative for installing the system for weights and dimensions control, which could include examining service delivery contracts, granting service concessions involving concessionaire investment, or coinvestment by the government and the concessionaire, etc. The study includes a cost-benefit analysis of the proposed system, an analysis of options for system operations, a legal analysis of operational alternatives, and analysis of other options service delivery using the concessionaire's equipment, equipment provided by the government, civil works financed in part by the concessionaire, civil works financed in part by the government, etc.).

(v) Particular attention will be devoted to designing a system of private concessions for the weights and dimensions control system. This involves assessing procedures for establishing user fees based on axle weight and preparing monthly, semiannual and annual financial projections for the expected term of the concession.

(vi) Standard designs for weigh stations and goods storage areas will be presented.

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[3] Part of the problem has to do with the lack of official statistics on overweight traffic.

1.23 Honduras is aware of the problem that overweight vehicles pose for the road system, and the political will is there to address this problem, on the basis of the proposed institutional arrangements that will emerge from the study. Meanwhile, Transportation Department staff will continue their highway control activities with the available resources.

1.24 **Hazardous cargo control**. Neither the Land Transportation Act, Decree No. 319 of 1976, nor its general regulations, Order 200, nor the Environment Act and its regulations contain any provisions for regulating the transportation of hazardous cargo.

1.25 The Honduran government recognizes the need to regulate this type of transportation, and with Congress now studying the new Traffic Act, the time is ripe to address the issue. The basic principle contained in the Traffic Act is that hazardous materials (previously defined) may be carried only in the manner determined by regulations, with respect to the characteristics of vehicles, packaging, prohibition of transportation together with food and other items for human or animal consumption, loading and unloading operations, parking, travel hours, itineraries, and accident prevention equipment. The government will also have to identify the authority responsible for establishing regulations and enforcing these rules.

1.26 SOPTRAVI and the Bank have agreed to use funds from loan 1106/SF-HO to hire an international consulting firm to undertake two tasks: (i) prepare the rules to be included in the Traffic Act and its subsequent implementing regulations; and (ii) to prepare, specifically for the CA-5 Norte Highway, a contingency plan for the entire route to cover accidents involving hazardous cargoes. As its point of departure, this work will take the environmental management plan and the specific measures for hazardous cargo handling on the two highway sections that will be financed with the loan proceeds.

C. The country's sector strategy

1.27 The Government of Honduras has given high priority to upgrading national infrastructure. The current administration started this process with reconstruction efforts to repair the damage caused by hurricane Mitch, which deprived the national economy of much of its supporting infrastructure. In recent years much effort has gone into resurfacing, rebuilding and maintaining the country's main road network. Efforts have also been made to expand coverage and upgrade the quality of a number of basic services, such as telecommunications, energy, ports and airports. Preliminary steps have also been taken to increase private participation in those sectors.

1.28 In the case of the road network, the 2002-2006 Government Plan includes specific targets for maintaining highway infrastructure and bringing it up to the standard

required for regional integration and the need to make the country more competitive. Consistent with that plan, SOPTRAVI has conducted studies for formulating and designing the CA-5 Norte highway project, as an essential part of the PPP Atlantic Corridor and a strategic link in the plan to develop the country's own logistical corridor.

1.29 **Maintenance**. As noted above, the agency responsible for routine, periodic and emergency road maintenance is the Highway Fund (FV). For purposes of road conservation in general and the sustainability of the project in particular, the FV is responsible for preserving the value of the investments made.

1.30 The FV was created by Congress through Legislative Decrees 131/93 and 286/98 for the purposes of:

(i) Ensuring the financial sustainability and ongoing execution of maintenance work on the official highways network, in order to reduce operating costs for the national vehicle fleet, to cut travel times, to reduce the number of accidents, and to halt deterioration of the road infrastructure itself.

(ii) To raise funds that can be used flexibly for routine and periodic road maintenance as and where it is needed.

(iii) To encourage greater private sector involvement in resolving the problems of road maintenance.

(iv) To promote job creation nationwide and create sources of work in rural areas, through the Microenterprise Program (on the paved road system) and the Road Laborers Program (Programa de Peones) for cleaning up the right-of-way (on the unpaved road system).

1.31 The FV Council consists of representatives of COHEP (Honduran Council of Private Enterprise), AMHON (Association of Honduran Municipalities), SEFIN (Ministry of Finance), the Ministry of Industry and Trade, CICH (the Honduran College of Civil Engineers), SOPTRAVI (the responsible ministry), the National Transportation Council and the General Directorate of Highways.

1.32 Article 16(e) of the Highway Fund Act defines the FV's own resources as consisting of an annual contribution derived from a fixed charge on fuel sales. The proceeds are earmarked for road conservation, social programs, and tourism development. As of 2002, the portion reserved for road conservation may not be less than 40%. The fuel sales tax is summarized in the following table:

PETROLEUM DERIVATIVES	CONTRIBUTION FOR ROAD MAINTENANCE, SOCIAL PROGRAMS, AND TOURISM DEVELOPMENT (US$ PER GALLON, PURSUANT TO DECREE 19/2003)
Super gasoline	1.0570
Regular gasoline	1.0530
Diesel	0.5047
Kerosene	0.2950
Aviation jet fuel	0.0300
Fuel Oil	0.3350
LPG	0.21000

1.33 The Government of Honduras has been increasing the funds devoted to road maintenance through the FV, which rose from 483 million lempiras in 2002 (US$29 million) to 519 million lempiras in 2003 (US$40 million). As a result, in 2003 maintenance work covered on average 50% of the entire system (83% of the paved system and 40% of the unpaved system). For 2004, the budget is 669 million lempiras (US$37 million). Although greater efforts are needed to ensure maintenance of the entire system, the trend is very favorable and demonstrates the government's commitment to road maintenance. In addition, the government has stated its intention to continue increasing the funds for maintenance, so as to achieve 75% coverage by the end of 2005, and 80% by the end of 2006.

1.34 The FV thus has sufficient resources to allocate for conservation of the CA-5 Norte while the public-private partnership for it is being implemented. The FV also has the institutional strength to administer those resources so that the investments planned under the project will be sustainable.

1.35 Public-private partnerships. Notwithstanding the efforts now being made to put maintenance on a sustainable basis, the government agenda calls for public-private partnerships for road management, including the concession of sections of the CA-5 Norte (Tegucigalpa-Chamelecón, south of San Pedro Sula) to private companies that will operate and maintain them and share the capital costs of improving them. Studies conducted by SOPTRAVI with Bank support (see paragraph 1.45) have shown that, despite the heavy traffic over portions of this main artery, a concession would not be economically attractive to the private sector if it meant that the concessionaire would have to put up all the capital needed for widening and resurfacing.

1.36 Bearing this in mind, the design of the concession for the CA-5 Norte between Tegucigalpa and Chamelecón would include the sections shown below, with investment break downs:

SECTION	WORKS REQUIRED	Length (Km)	Investment (US$ millions)
1. Tegucigalpa – Beginning of the Valle de Comayagua	Addition of a third lane Intersection improvements Acceleration and deceleration lanes Signage and markings	58	20
2. Beginning of the Valle de Comayagua – End of the Valle de Comayagua	Widening to four lanes Intersection improvements Acceleration and deceleration lanes Signage and markings.	25	22
3. End of the Valle de Comayagua – Siguatepeque	Addition of a third lane Intersection improvements Acceleration and deceleration lanes Signage and markings	24	6
4. Siguatepeque – Taulabé	Addition of a third lane Intersection improvements Acceleration and deceleration lanes Signage and markings	26	9
5. Taulabé – La Barca	Addition of a third lane Intersection improvements Acceleration and deceleration lanes Signage and markings	52	14
6. La Barca – Villanueva	Widening to 4 lanes over 50% of its length and upgrading the remaining 2-lane section. Bypasses Intersection improvements Acceleration and deceleration lanes Signage and markings	26	22
7. Villanueva – Chamelecón	---	16	0
TOTAL		**227**	93

1.37 On the basis of these findings, the concession is designed so that the private concessionaire will be responsible for operation and maintenance on all sections of the road for the term of the concession, as well as for the initial investments in sections 1, 3 and 4 as shown in the preceding table. To make the operation feasible, the government will in turn take responsibility, through the state budget and external financing, for the initial investments in sections 2 and 6 covered by the proposed Bank loan, as well as section 5, for which financing negotiations with the World Bank are now underway. Discussions are also being held with the Nordic Fund to obtain additional cofinancing for the CA-5 Norte, so as to optimize the public-private partnership profile.

1.38 With this strategy in place, SOPTRAVI will be in a position to structure a public-private partnership project, to keep the complexity and the risks manageable in the Honduran context, and to make it sufficiently attractive to private investment. The proposed loan, then, will support the financial feasibility of this public-private

partnership: most of the funds will go to investments in improving the CA-5 Norte, without which the project as a whole would not be attractive.

1.39 As an additional contribution, it has been agreed with the government that the Bank will arrange MIF resources (TC-HO-M1002) for a technical-cooperation operation to support the technical, legal and financial structuring of the concession. This operation will support, among other activities, the following:

(i) Preparation of the concession: due diligence, bidding documents, and promotion of the business opportunity.

(ii) Contracting process: analysis of proposals, assistance to SOPTRAVI in evaluating the proposals received, contract design and negotiation.

(iii) Training for staff of the Concessions Unit of SOPTRAVI.

(iv) Demand studies and analysis of future public-private partnerships.

(v) Design and implementation of a strategy to instill a "toll culture" among users of the roads under SOPTRAVI's responsibility. This analysis will include a review of the municipal rules and policies for collecting tolls and their relationship with the CA-5 Norte public-private partnership. The analysis will focus in particular on cases applicable to San Pedro Sula and Tegucigalpa.

(vi) An evaluation of innovative tools for improving the financial profile of the concession.

(vii) Evaluation of a phased approach to structuring the public-private partnership gradually over time.

1.40 It is hoped that this TC can be approved before the end of 2004, so that the first phase of the CA-5 Norte public-private partnership can be completed by the end of 2005.

D. The Bank's country and sector strategy

1.41 The project is consistent with the Bank's strategies for the sector, which call for supporting countries in the organization, construction, administration and operation of transportation systems, with an emphasis on the resurfacing and widening of existing road systems (OP-731). The project is also consistent with the Bank's competitiveness strategy, because it will help Honduras to improve its economic climate and enhance productivity through the efficient supply of infrastructure services (OP-1005).

1.42 The project will also contribute to the Bank's Country Strategy with Honduras approved in February 2003 (GN-2238). That strategy seeks to assist the government with its efforts to reduce poverty by fostering more sustainable growth through greater competitiveness and increased production capacity for the poor. To enhance the competitiveness of productive activities, the strategy will support: (i) creating a favorable investment climate; and (ii) reducing the operating and logistical costs of doing business in Honduras. By helping to reduce transportation costs on the country's most important highway, the project will have a positive impact on the logistical and operational costs of businesses, in terms both of their access to raw materials and the marketing of their products, especially those for export. Bearing in mind that the CA-5 Norte is also a crucial link in the PPP regional integration system, the project will contribute directly to improving the competitiveness of Honduran goods and services, to which the country strategy attaches particular importance as the CAFTA and the FTAA take shape. Consistent with the country strategy, the project's impact on competitiveness and hence on economic growth will contribute to reducing poverty.

E. Experience of the Bank and other agencies

1.43 This project is closely related with loans now in execution: 1053/SF-HO (US$26.8 million) for reconstruction in the wake of hurricane Mitch (more than 60% disbursed and 90% committed); and 1106/SF-HO (US$7.6 million) for strengthening the project execution capacity of SOPTRAVI, improving its planning system, and giving the Highway Fund institutional responsibility for road safety and maintenance.

1.44 To ensure that the government's institutional strengthening program for SOPTRAVI is effective (see paragraph 1.12), the Bank and the government agreed in the context of loan 1106/SF-HO that the conditions indicated in Table I-1 should be satisfied before any new Bank operation for the road sector is approved. Conditions 1, 2, 4, 5, 6 and 7 have been satisfied, and the public information system on tenders and contracts is operating in a test period. Implementation will be complete before the notice of the tenders covered by this project is issued.

TABLE I-1

Condition
1. Commitment of 75% and disbursement of 50% of the proceeds of loan 1053/SF-HO
2. Multiyear Investment Plan approved and in execution
3. Public information system operating for bids and contracts
4. Environmental Management System operating
5. UGA personnel assigned
6. Highway Fund budget increased by 10% in 2003 and kept at this level in subsequent years
7. Final designs approved for priority works to be financed with the new loan

1.45 The Bank has also supported the search for generally applicable mechanisms for incorporating the private sector into the financing and management of highways in Honduras. Loan 968/SF-HO provided resources for studies on developing a program of public-private participation in infrastructure, and advisory services on legal and institutional strengthening of the country's concession program. A MIF-financed regional technical cooperation operation (TC-0304041) is now in preparation for strengthening the regional legal, regulatory and institutional framework for road concessions in PPP countries, which will benefit Honduras and the other countries of Mesoamerica. As well, the concession for the CA-5 Norte will be analyzed with funding from loan 1106/SF-HO, including determination of the detailed investment program for the Honduras Logistical Corridor concession. The Bank is also preparing a MIF operation (TC-HO-M1002) for the technical, legal and financial structuring of the CA-5 Norte public-private partnership (see paragraph 1.39).

1.46 In the RICAM context, the project complements the support provided in the US$37 million loan approved in 2003 (1468/OC-PN) for improving the PPP Pacific integration highway corridor in Panama, as well as that provided in the US$40 million PPP competitiveness loan for Nicaragua approved on 2 February of this year (1530/SF-NI).

1.47 The project will complement the efforts of other agencies with which the government has been arranging funding for other stretches of the CA-5 Norte. The Government of Mexico, through the San José Accord, CABEI and the Nordic Fund are helping to finance the resurfacing and completion of the Corinto–Puerto Cortés section (61 km), and the Nordic Fund is also cofinancing the Jícaro Galán–El Amatillo stretch (40 km) of the PPP Pacific Corridor. In addition, the government is discussing with the World Bank the possibility of redirecting funds from its operations into resurfacing of the section from La Barca to the end of the Comayagua Valley (28 km).

F. Lessons learned

1.48 In preparing the project, special account was taken of lessons learned in the road sector in Honduras (operations 1053/SF-HO and 1029/SF-HO), in particular as they relate to the capacity to implement the operation as soon as it is approved, and to reduce the risks of cost overruns and extensions to the execution schedule, by tendering the works on the basis of up-to-date and clearly defined engineering studies. Thus, during preparation of the financing plan, attention has been given to the quality and timeliness of the detailed engineering studies. The project was also preceded by an institutional strengthening operation (1106/SF-HO), which has succeeded in improving the executing agency's responsiveness in moving the works along.

G. Coordination with other agencies

1.49 The project is part of a broader investment plan that covers the entire CA-5 Norte highway and involves CABEI, the Nordic Fund and potentially the World Bank. The project team has been discussing and exchanging information with these agencies during project preparation. As part of the PPP transportation initiative, there have also been coordination meetings involving these and other multilateral and bilateral entities. During the execution stage, SOPTRAVI will institute a mechanism for coordination, dialogue and the exchange of up-to-date information among financial institutions and development agencies participating in the CA-5 Norte (see paragraph 3.27).

H. Program strategy

1.50 The proposed loan (HO-0207) follows immediately on loan 1106/SF-HO which sought to support the institutional strengthening of SOPTRAVI. The Bank and the Government of Honduras both considered that such a move was essential before new investments in the road sector could proceed effectively. As its institutional capacities have been strengthened, SOPTRAVI, with the support of the Bank and consultants' studies, has thoroughly assessed the physical and functional condition of the entire CA-5 Norte, section by section, analyzing its current state and its likely future performance as traffic demands increase.

1.51 Using these evaluations, priorities were established, based on the expected economic return for each section of the road and the availability of maintenance. Additional criteria for evaluating improvement options included the level of service; the efficacy of investment for improving that level of service; vehicle safety and the identification and evaluation of accident-prone points; capacity reductions through "lateral friction;" and the calculation of economic return indicators. As a result, priority was assigned to the sections running from the beginning to the end of the Comayagua Valley, and from Villanueva to La Barca. On this basis, detailed engineering design studies and environmental and social impact analyses were contracted for those two sections. The government has also used these analyses to arrange financing for further priority sections of the CA-5 Norte with other international agencies, including the World Bank, CABEI, JBIC (Japan Bank for International Cooperation) and the Nordic Fund.

II. THE PROGRAM

A. Objectives and description

2.1 The general objective is to make Honduras more competitive and support the process of integration with countries of the Puebla-Panama Plan (PPP) by improving transportation conditions and reducing operating costs, travel times and accident rates in highway transportation. The specific objectives of the project are: (i) to improve the conditions for transporting passengers and merchandise on the CA-5 Norte (on the stretches from the beginning to the end of the Comayagua Valley and from Villanueva to La Barca); and (ii) to improve road safety on the PPP highway system in Honduras.

2.2 The CA-5 Norte is the main artery of Honduran economic and social life. It also includes the Atlantic Corridor of the RICAM (International Mesoamerican Highways System), which the Puebla-Panama Plan (PPP) has identified as a priority highway for the region, as part of its economic integration corridors and as a key factor in the sustainable development of the region's natural resources. Of the various sections of the CA-5 Norte as it runs from Puerto Cortés to Tegucigalpa, two sections have been given priority in light of their current condition, traffic load, towns and rural areas served, their economic indicators and the forecast growth of future demand: (a) the section from the beginning to the end of the Comayagua Valley, and (b) the section from Villanueva to La Barca.

B. Project structure

2.3 The project has been structured in two components that call for resurfacing and widening of sections of the CA-5 Norte and the design and implementation of a road safety program for the PPP highway system in Honduras. These works complement investments in other sections of the CA-5 Norte to be financed with resources from the World Bank, the Nordic Fund, and private investors (see paragraph 1.37).

1. Widening and resurfacing of the CA-5 Norte

2.4 The project will focus its investments on two critical stretches of the CA-5 Norte:

2.5 **Beginning to end of the Comayagua Valley**. Works on this section consist of widening the roadway to four lanes in portions outside urban areas, building a bypass around the town of Comayagua (which will also be four lanes) and surface reinforcement of the two existing lanes with an asphalt cap. The topography of this section is generally flat or gently rolling, which makes for easy alignment. The total length of the section is 24.7 km. Lane widths are planned at 3.65 m with hard

shoulders of 2.4 m, and average asphalt pavement depth of 10 cm. Five bridges will be built.[4] Total investment on this section is estimated at US$21.73 million.

2.6 **Villanueva to La Barca**. This 25.5 km section lies in the center-south portion of the Sula Valley. It is currently two lanes, converging to the north with a multilane segment linking Villanueva with San Pedro Sula, and extending on to Puerto Cortés. A portion of this section, between Villanueva and the Ulúa River, runs through the Sula Valley flats where there is a risk of flooding from the Ulúa River. The section includes four segments: (a) Segment I (Villanueva to Pimienta Norte), 2 km long, to be widened to four lanes, keeping the existing roadway, which will be given an asphalt cap; (b) Segment II (Pimienta Norte to Ulúa River) of 3.6 km, which includes construction of a new two-lane roadway of asphalt concrete and construction of a bypass around the village of Pimienta and a new bridge over the Ulúa River of about 320 m in length; (c) Segment III (Ulúa River to Potrerillos South) of 6.9 km, for which a new two-lane roadway of asphalt concrete will be built, together with a bypass around the village of Potrerillos; and (d) Segment IV (Potrerillos South to La Barca) of 13 km, which will be given an asphalt concrete cap. The design calls for lane widths of 3.65 m with hard shoulders of 2.40 m and an average pavement depth of 10 cm. The project includes works to reduce the risk of flooding near the Ulúa River. Total investment on this section is estimated at US$22.38 million. Cofinancing for this section is currently being negotiated with the OPEC Fund.

2.7 Private consulting firms will supervise these works at an estimated cost of US$4.2 million. Drawing on international experience, SOPTRAVI is considering lump-sum contracts for works supervision,[5] rather than contracts associated with the duration of the works. Early completion incentives for the supervisor would also be built in.

2.8 This component includes US$1.5 million for improving road safety on the upgraded sections of the CA-5 Norte. These investments will include signage, pedestrian crossings, lighting at intersections, and protective barriers. The costs of environmental and social mitigation, estimated at US$2.89 million, are also included.

2. Improving road safety on the PPP highway system

2.9 This component includes the design and implementation of a road safety investment plan over the PPP highway system in Honduras. Specific investments will be identified in light of the outcomes of the project to strengthen SOPTRAVI's road safety system and the pilot project for road safety on the CA-5 Norte, which

[4] New bridges over the San José, Tujaca, Canquigüe, Humuya and Selguapa rivers

[5] With contracts of this type, extensions to deadlines and budgets are possible only in exceptional cases, such as force majeure or for other reasons beyond the supervisor's control.

are proceeding under loan 1106/SF-HO. The program will finance road signs and pavement markings for critical points and sections. Road signage will follow the Central American Manual for Uniform Traffic Control Devices. For PPP highways other than CA-5, the project will fund safety studies to identify critical points and accident-prone sections. Road signs will relate primarily to speed limits, preventing the presence of pedestrians, and regulating intersections. Pavement markings will be used primarily for median and lateral demarcation in critical stretches, and the need for speed reduction devices will be evaluated. The cost of this component is estimated at US$1.5 million, and it is expected to cover approximately 350 km of the PPP highway system in Honduras.

C. Cost and financing

2.10 Table II-1 shows total project cost estimates and the proposed financing. The Bank's financing will be provided through an investment loan representing 79% of the total cost. Local resources and cofinancing will cover the remaining 21% of the project. Negotiations are now underway with the OPEC Fund for US$7 million in cofinancing. Government resources will amount to 10% of the project cost, and 11% of the combined Bank loan and local counterpart contribution.

Table II-1
Cost and Financing
US$ millions

Item	IDB	OPEC	Gov't of Honduras	Total
1. Engineering and Administration	**4.68**	**0.99**	**1.88**	**7.55**
1.1 Supervision and audit	3.68	0.99	0.00	4.67
1.2 Administration and management	1.00	0.00	1.88	2.88
2. Direct costs	**41.27**	**6.01**	**2.73**	**50.01**
2.1 Widening and resurfacing of CA-5 Norte	39.77	6.01	2.73	48.51
2.1.1. Beginning to end of Valle de Comayagua	20.66	0.00	1.07	21.73
2.1.2. Villanueva to La Barca	16.21	5.10	1.07	22.38
2.1.3 Road safety measures on sections of the CA-5 Norte	1.50	0.00	0.00	1.50
2.1.4 Environmental and social mitigation on sections of the CA-5 Norte	1.39	0.91	0.59	2.89
2.2 Road safety on PPP routes	1.50	0.00	0.00	1.50
3. Contingencies	**3.55**	**0.00**	**0.00**	**3.55**
4. Financial expenses	**0.50**	**0.00**	**1.58**	**2.08**
4.1 Commitment fee	0.00	0.00	0.53	0.53
4.2 Interest	0.00	0.00	1.05	1.05
4.3 Inspection and supervision fee	0.50	0.00	0.00	0.50
Total project	**50.00**	**7.00**	**6.19**	**63.19**
	79%	11%	10%	100%

III. PROJECT EXECUTION

A. Borrower and executing agency

3.1 The borrower will be the Republic of Honduras, and the executing agency will be the Ministry of Public Works, Transportation and Housing (SOPTRAVI), acting through its General Directorate of Highways (DGC) and the DGC's Project and Execution Management Group (GGPE). The government will channel the investment loan proceeds to SOPTRAVI, earmarked specifically for the project.

B. Execution and administration

3.2 Within the DGC, the Project and Execution Management Group (GGPE) will be responsible for loan administration. The GGPE will have the following functions: (i) implement and maintain effective information systems for administering contracts and the program's financial accounts, as well as for internal control in the handling of funds from the IDB, the local counterpart contribution, and other sources of financing, consistent with Bank requirements; (ii) submit disbursement requests and supporting documentation for eligible expenses in a timely manner; (iii) prepare and submit regular progress reports, semiannual reports on the revolving fund, and other financial reports as required by the Bank, including the annual financial statements for the program, in a timely manner; (iv) maintain separate and specific bank accounts, such that the source and use of funds from the Bank, the local contribution, and other sources of financing can be identified; (v) maintain an effective filing system of supporting documentation on eligible expenditures for verification by the Bank and the external auditors; (vi) prepare bidding documents with the assistance of independent evaluators contracted with project funds; (vii) to coordinate with other SOPTRAVI offices; (viii) support the hiring of consultants for specialized tasks; (ix) to control and monitor work execution timetables; (x) coordinate activities relating to environmental management and rights-of-way; (xi) manage project administration resources; (xii) prepare technical reports as required by the Bank; (xiii) review and process work estimates; and (xiv) compile and disseminate financial and execution information on CA-5 Norte projects financed by other financial institutions and development agencies, the government or the private sector. In addition, the GGPE will be responsible for monitoring the indicators set in the logical framework for the operation. The GGPE will also have an IDB projects coordinator with the following functions: (i) manage technical, financial and administrative aspects of services provided by the specialized firm, the Bank, and SOPTRAVI; (ii) prepare regular progress reports on activities; (iii) serve as liaison between the executing agency and the Bank; and (iv) supervise the specialized firm.

3.3 The project includes financing for a specialized firm that will assist the GGPE in administering the project, bearing in mind the benefits that this pilot approach

produced in loan 1106/SF-HO and the need to strengthen aspects of quality control for the new operation (see paragraph 1.12). In accordance with terms of reference and public tendering and selection procedures agreed in advance with the Bank, selection of such firm will be a condition precedent to the first disbursement of the loan. Hiring of the IDB projects coordinator will also be a condition precedent to the first disbursement (see paragraph 3.13).

C. Maintenance and weights and dimensions control

3.4 During project execution, the construction firms themselves will be responsible for maintaining the highway sections financed by the loan. Once the works are completed, the borrower and the executing agency agree: (a) to ensure that the works financed by the loan will be properly maintained and operated in accordance with generally accepted technical standards; (b) to deliver to the Bank, within three months after completion of the respective work, an operations and maintenance plan (OMP) for the highway, identifying activities for achieving its expected useful life, the sources and resources to be devoted to these activities, and the technical and institutional structure for carrying out the OMP, indicating the responsibilities that will fall to the Highway Fund and those that will fall to the concessionaire for the CA-5 Norte public-private partnership; and (c) to deliver an annual operations and maintenance report to the Bank for three years after the last disbursement, in the first quarter of each calendar year.

3.5 The borrower and the executing agency undertake to advise the Bank if the strategy of setting up a public-private partnership is implemented during project execution, and they will inform the Bank whether that arrangement includes maintenance of the sections financed by the Bank, or some variant involving a private financing mechanism for maintaining those sections. That strategy will be deemed to be implemented when prequalification and/or tendering are initiated. The information supplied will include the bidding documents and draft contracts, as well as supporting documentation on the arrangement.

3.6 With respect to maintenance, the borrower and the executing agency undertake to deliver to the Bank an annual report on maintenance of the road system, prepared using a standard format and terms agreed with the Bank. The report will be submitted in the first quarter of each year, covering the previous year, during program execution and for the three years following the last disbursement, for the purpose of evaluating whether maintenance of the entire road system is continuing at a sufficient level. The report will contain at least: (i) general information on the structure and responsibilities of the entity or entities doing the maintenance, the number and type of personnel assigned, the equipment provided, and the nature and quantity of maintenance contracts awarded; (ii) an updated inventory of the condition of the system; (iii) an evaluation of execution of the previous year's maintenance plan; and (iv) the road maintenance plan for the following fiscal year,

substantiating the priorities adopted, the type of activities, the work execution timetable and the financial and physical resources involved.

3.7 SOPTRAVI has agreed with the Bank that the CA-5 Norte will be part of the sample of highways that will be used to assess the planned national weights and dimensions control activities (see paragraph 1.22). SOPTRAVI will therefore present to the Bank, no later than the year following the effective date of the loan contract, an assessment report and a plan for implementing weights and dimensions control on the CA-5 Norte under terms and conditions previously agreed with the Bank. This plan must include measures of control for the route and for cargo shippers, along with training, publicity and awareness activities highlighting the importance of controlling weights and dimensions on the highway.

D. Legal possession, rights-of-way and other rights

3.8 The team has reviewed the process for managing, financing and acquiring legal possession, rights-of-way and other rights, and the activities plan that SOPTRAVI is implementing to ensure the availability of those rights, so that the works can be carried out on schedule and within budget. The Ministry of Finance (SEFIN) has made allowance for US$5.63 million (100 million lempiras) in the budget, to cover the costs of those rights. Of those funds, 50% will be available during the second half of 2004, and the remainder in 2005. As a special condition precedent to the first disbursement, evidence must be provided of the allocation, incorporation and transfer to SOPTRAVI's budget of the resources for acquiring legal possession, rights-of-way and other rights as needed for works during the first year of the program.

3.9 SOPTRAVI considers it necessary to begin tendering before all rights-of-way have been secured, in order to keep to the investment schedule for the CA-5 Norte and to ensure that the project's benefits materialize promptly. According to the works schedule, SOPTRAVI would begin work on the various sections to be contracted as soon as the corresponding rights-of-way for those sections are secured.

3.10 Consequently, the Bank may authorize SOPTRAVI to proceed with the public tender for the works, subject to a commitment to deliver to the Bank, before the respective works contract is signed, evidence of legal possession, rights-of-way, and other rights needed to begin work, along with evidence of implementation of the relevant resettlement plan. For such purpose, the bidding documents must include: (i) the maximum time that may elapse between the date of award and actual signature of the contract, and the price adjustment mechanism to be used during that period; and (ii) a bid bond to cover that entire interval of time.

E. Procurement

3.11 The contracting of works, the selection and contracting of consulting services, and the purchase of goods financed with the loan will be conducted in accordance with Bank policies and procedures. International competitive bidding will be required for works contracts with an estimated value exceeding US$2 million, for consulting contracts exceeding US$200,000, and for goods purchases exceeding US$250,000. Procurement of goods and services for amounts less than those limits will be governed by local legislation, provided due attention is paid to aspects of economy, efficiency and reasonable pricing, and that member countries of the Bank are allowed to bid. Annex II contains the Bidding and Procurement Plan for the project, and summarizes these thresholds.

3.12 In the case of supervision contracts, supervisors will be selected by the lowest cost method or by the quality and cost method.

3.13 To strengthen the GGPE's capacity to evaluate bids in Bank-financed tenders, its staff will be given the appropriate training and special services will be contracted to support this process within SOPTRAVI. Supporting documentation for procurement and disbursements will be reviewed on an ex ante basis. Additionally, the technical experience gained while setting up the GGPE constitutes a new strength for SOPTRAVI. In order to make the most of that strength in project management and coordination, authorization of direct contracting without competition is recommended for the continuation of services of the IDB projects coordinator at SOPTRAVI. The IDB program coordinator was selected by open competition in accordance with Bank procedures under loan 1106/SF-HO.

F. Disbursement period and schedule

3.14 The disbursement period for the project will be a minimum of three years and a maximum of four years, running from the effective date of the loan contract. Table III-1 shows the estimated disbursement schedule.

Disbursement Plan

Table III-1

Disbursement Schedule

(in US$ millions equivalent)

Source	Year 1	Year 2	Year 3	Year 4	Total
IDB (FSO)	5.00	17.50	20.00	7.50	50.00
Gov't of Honduras	0.62	2.17	2.48	0.93	6.19
OPEC Fund	0.00	2.80	3.15	1.05	7.00
Total	5.62	22.47	25.63	9.48	63.19

G. Revolving fund

3.15 The project team recommends that a revolving fund of up to the equivalent of 5% of the Bank's funding be established for the project, taking into account the scheduling of works and the simultaneous execution of several investments. The GGPE will be responsible for providing semiannual reports on the status of the revolving fund, within 60 days after the close of each six-month period.

H. Monitoring and evaluation

1. Supervision by the Bank

3.16 Project supervision will be carried out by the Bank's Country Office in Honduras. It is also planned that the project team would conduct a project administration mission at least once a year.

3.17 The executing agency and the Bank will hold joint meetings no later than 30 September of each year during project execution, to examine progress with the project and with the annual investment plan. They will also review progress toward targets, objectives and indicators and agree on the investment plan for the following year, specifying the targets to be achieved, as well as any corrective measures needed. The executing agency undertakes to deliver to the Bank, at least 15 working days before the each such meeting, a report for the preceding six-month period prepared by the supervisors contracted for the road works, as well as a project progress report, and reports on maintenance, fulfillment of contractual obligations, and progress in achieving the project indicators and targets presented in Annex I (Logical Framework). If the Bank should find shortcomings in project execution, the executing agency will deliver to the Bank a proposal and schedule for corrective measures, against which progress will be reviewed during the administration and monitoring missions.

2. External audit

3.18 The external audit of the program will be done by a firm of independent auditors acceptable to the Bank, in accordance with Bank policies and procedures (documents AF-100 and AF-300), contracted through procedures established in the Bidding Documents for the Procurement of Audit Services (AF-200) and on the basis of the guidelines established in the Terms of Reference for External Audits of Bank-Financed Projects (AF-400), which will require the Bank's prior approval.

3.19 The external audit will cover both financial and operational aspects, and will require delivery of an "interim" semiannual report during project execution, within 60 days after the close of the first calendar semester.

3.20 The annual financial statements for the program will be submitted within 120 days after the end of the fiscal year, and the final financial statements at the close of the

program will be submitted within 120 days after the last disbursement. Audit costs will be part of the program cost, and will be financed from the Bank loan proceeds.

3. Final and ex post evaluation

3.21 A final evaluation of the program will be conducted once all funds have been disbursed, with participation by the executing agency and the Bank, following the rules for project completion reports (PCR). The purpose of this evaluation will be to analyze the outcomes of each component and to draw lessons for future projects, with particular attention to compliance with budgets and physical targets and to the success of the proposed mechanism for coordinating financial institutions and development agencies.

3.22 The government and the Bank have agreed to conduct an ex post evaluation of the project, to confirm the impacts indicated in the logical framework. Given the nature of these impacts, the evaluation should be conducted five years after the highway enters operation. The Government of Honduras will fund this evaluation.

3.23 The principal variables to be evaluated are identified in Table III-2. The road safety indicators (accidents and fatalities) will have to be disaggregated to provide data for the CA-5 Norte as a whole, the two project-related sections, and the PPP highway system. Qualitative variables will also be evaluated, relating to institutional progress in the area of highway planning and safety. In terms of planning, a record will be kept showing adjustments made each year in the multiyear investment plan and indicating the projects added, modified or deleted, and the annual investment amounts. Similarly, accounting records will be kept on budgetary allocations and capital outlays for each of the projects included in the SOPTRAVI budgets. In the case of road safety, a record will be kept of each of the road safety plans and campaigns implemented as a result of the pilot project currently underway through loan 1106/SF-HO, identifying the starting date, goals and duration. Within six months after the effective date of the loan contract, SOPTRAVI will send revised figures for the baseline included in Table III-2, a description of the way they were calculated or revised, the specific information sources indicating the person responsible for providing the data or applying the models and assumptions used, and an analysis of how those assumptions will be handled in following years.

3.24 As of the first year of the loan contract, and semiannually thereafter until four years after the last disbursement, SOPTRAVI, acting through the GGPE, will provide the Bank with the figures and results for the quantitative variables mentioned above.

3.25 In the fourth year of the contract, an interim evaluation report will be submitted, analyzing the behavior of the variables, their relationship with other economic performance variables, such as output, exports and the competitiveness of the country's road infrastructure. That evaluation will contain an estimate of how the benefits in terms of operating costs, travel time and road safety will be distributed

among local users and carriers and among long-distance users and carriers, in Honduras and in other PPP countries.

3.26 Five years after the last disbursement, SOPTRAVI will send the Bank the ex post evaluation report, containing the same analyses provided in the interim evaluation, updated, plus a section evaluating how the benefits were actually distributed, and a section with conclusions specifically relating the results of this project to the road transportation sector and the Bank's participation in the sector at that time.

Table III-2

Indicators for ex post evaluation

Indicator	Unit	2003	2007	2012
		Baseline	Opening of CA-5 Norte	Ex post evaluation
Annual average daily traffic (AADT)	Veh/day	T1= 6,798	T1= 7,668	T1= 9,375
		T2= 7,663	T2= 9,000	T2=11,002
Operating costs				
Automobiles	US$/veh-km	T1= 0.23	T1= 0.20	T1=0.20
		T2= 0.23	T2= 0.21	T2=0.21
Buses	US$/veh-km	T1=0.66	T1=0.53	T1=0.53
		T2=0.64	T2=0.54	T2=0.54
Articulated trucks	US$/veh-km	T1=0.56	T1=0.48	T1=0.48
		T2=0.58	T2=0.54	T2=0.52
Travel time, Tegucigalpa-San Pedro Sula (automobiles) [6]	Hours and minutes	3h 28 min	2h 27 min	2h 27 min
Travel time, beginning to end Valle de Comayagua (autos)	minutes	29	22	22
Travel time, Villanueva to La Barca (autos)	minutes	26	19	19
Freight transportation cost, Tegucigalpa to San Pedro Sula	US$/Ton	6.37	5.78	5.75
Status of road	IRI m/km	3.5	1.8	2.1
Reduction in accident rate	accidents/ million veh-km	0	5%	10%
Reduction in fatalities	deaths/ million veh-km	0	8%	15%

T1 = Beginning to end Valle de Comayagua y T2= Villanueva a La Barca

[6] Assuming that the planned work on CA-5 Norte is completed, in addition to the works financed by the project.

I. Coordination of investments for the CA-5 Norte

3.27 The borrower and the executing agency are committed to instituting a mechanism for coordination, dialogue and exchange of current information among financial institutions and development agencies participating in the CA-5 Norte. To this end, SOPTRAVI will prepare a semiannual report on works execution on the CA-5 Norte and distribute it to each participating institution. The report will indicate progress toward physical and financial targets for the projects financed by each donor, summarize the number, description and status of physical and financial progress under each works and supervision contract, and offer a brief summary of critical aspects encountered that might affect successful completion and achievement of objectives for each project at a given time. The report will indicate SOPTRAVI's progress with the public-private partnership strategy for the CA-5 Norte. It will also include data on the persons responsible within each international entity and at SOPTRAVI. Ten days after the report is distributed, SOPTRAVI will convene a meeting of participating financial institutions and development agencies.

IV. FEASIBILITY AND RISKS

A. Technical feasibility

4.1 The project team has confirmed the technical feasibility of the project. The engineering studies were conducted by internationally experienced firms and meet international standards. The specifications for the highway sections to be financed have been determined in accordance with current and projected traffic requirements. The project does not include works of great technical complexity, and the designs and technical plans for the works indicate that the improved highway will achieve its technical functionality. The team reviewed the data used to determine the routing of the highway, the type of pavement structure to be used, the design loads, and the use of existing roadways for expanding capacity. It also reviewed the conceptual basis used for selecting the proposed flood prevention works. At the outset of loan preparation, the team made specific recommendations on these aspects, so that they could be taken into account in the final designs and budgets.

4.2 With specific reference to safety considerations on the planned sections, the projects developed by international consultants, SOPTRAVI technical staff, the GGPE advisory firm, and the project team have been externally reviewed. The conclusion is that the designs are effective, and that safety was properly taken into account in identifying design alternatives. Among the aspects considered were:

(i) **Design standards**. The standards followed were those of the Highways Manual of the General Directorate of Highways of Honduras and those of the American Association of State Highway and Transportation Officials (AASHTO), for the specific highway category (four lanes with partially controlled access), where the principal conditioning factor is a design speed of 100 kph. Thus, in the horizontal plane, the minimum curve radius is wide (500 m) and spiral curves allow for banking; on the vertical plane, the maximum grade was set at 3% to provide ample braking visibility distances that exceed minimum standards.

(ii) **Bypasses**. It is clear that the decision to route the highway around the villages of Comayagua, Potrerillos and Pimienta is one of the key road safety elements in the design. Safety and functionality considerations suggested that the existing routing through those villages should be abandoned, and this will improve safety in two ways: first, it separates long-distance traffic (for the most part heavy vehicles) from local traffic, and it reduces traffic through built-up areas by an estimated 20%, thereby reducing risks to pedestrians, cyclists, light vehicles, and interurban buses.

(iii) **Intersections**. Another safety element introduced in the design is the improvement to existing intersections, plus limitations on direct access to the highway. In some cases, such as when crossings were unavoidable, provision has been made for underpasses through reinforced concrete tunnels to carry heavily traveled streets and truck routes.

(iv) **Collector lanes and service roads**. In urban stretches of the highway, provision has been made for the construction of collector lanes and service roads as an additional safety measure to limit crosscutting traffic.

(v) **Metal barriers**. "Flex beam" barriers are to be placed on all stretches with a grade higher than 3 m, according to standard.

(vi) **Signage and pavement markings**. Pavement marking will be complete, with painted centerlines and edge lines, and indication of no-passing zones. Signs will include informative, preventive and restrictive signs.

(vii) **Intersection lighting**. Lighting has been provided at major intersections

4.3 The project team believes that the design of the sections included in the project meets the essential road safety needs for such an important highway. The methodology to be used in identifying measures to improve road safety on the PPP system is adequate for the Honduras system, and will maximize the efficacy of investments made with the loan proceeds.

B. Economic feasibility

4.4 Studies have confirmed the project's economic merits (see Table IV-1). The economic evaluation of the project was done by the consulting firms responsible for the engineering designs. The findings were reviewed by UPEG as part of SOPTRAVI's investment plan for the CA-5 Norte. The evaluation was done using the World Bank's HDM III model. The quantified benefits arise from savings in terms of freight and passenger vehicle operating costs and travel times as a result of the roadway improvements. The costs include the investments to increase the capacity of the existing road as well as the improvements to existing infrastructure and the costs of maintenance with and without the project. The operating cost and travel time parameters used in the model are appropriate to the Honduran setting. Vehicle operating costs have been estimated for each type of vehicle, both with and without the project. In estimating the benefits, traffic growth projections were based on varying rates for different types of vehicles: the resulting projected annual average growth in traffic is 4.1% for the first 10 years, and 3.1% thereafter.

4.5 Sensitivity analyses show that the evaluation is robust and that there is a high probability that the benefits will materialize once the investments are in place.

Table IV-1							
Summary of Economic Evaluation Findings							
Section	**Base case**			**Sensitivity analysis**			
				IRR (%)		**NPV (US$ millions)**	
	IRR (%)	**NPV (US$ millions)**	**B/C Ratio**	**Cost 20% higher**	**Traffic 50% lower**	**Cost 20% higher**	**Traffic 50% lower**
Beginning to end of Valle de Comayagua	22	15	1.93	19	19	12	10
Villanueva to La Barca	37	35	3.61	32	25	32	27

4.6 The economic evaluation of the overall program for improving and widening the CA-5 Norte also shows positive economic returns (IRR = 24% and NPV = US$113 million, discounted at 12%).

C. Institutional feasibility

4.7 The Bank has concentrated its support for the road sector, first, on institutional strengthening for transportation sector management in Honduras, with a special emphasis on road management and sustainable maintenance, and second, on financial support for investments in improving and expanding the road system. This support is being provided within important fiscal constraints that have affected the availability not only of financial but also of human resources. SOPTRAVI's capacity building efforts (see paragraph 1.11) confirm the institutional feasibility of this operation. The project team also believes that continued Bank support for road projects of economic and social importance to Honduras, such as those included in this operation, will produce value added that will enhance the sustainability of the country's roads management.

D. Financial feasibility

4.8 Once the final design studies are in hand, it will be possible to prepare a disbursement schedule suited to the pace of execution of the civil works. The Ministry of Finance (SEFIN) has confirmed that it will earmark the necessary counterpart resources for works on the sections to be financed by the project. The financial sustainability of project maintenance is assured initially through the funding and management resources that the Highway Fund will contribute for regular and routine maintenance; those resources will be replaced by the proceeds from the tolls that will be collected once the CA-5 Norte concession is in place. Maintenance costs for the two sections are estimated at 1% of the average annual resources currently available to the Highway Fund. When it comes to maintenance of the entire system, the government is pursuing a policy to increase maintenance funding, and to expand maintenance coverage to 80% of the system by the end of 2006. The loan contract includes provisions to ensure that the project is properly

maintained and that the Bank is informed of progress in extending maintenance to the entire system (see paragraphs 3.4 to 3.7).

4.9 The project takes place in a context of financial constraints on the road sector. In terms of recent history, it should be noted that investment in the sector between 1995 and 1999 averaged US$85 million. Yet, as noted in Table IV-2, investment in construction and improvements dropped by 22% in 2000, and the situation became even more critical in 2001, when annual investment declined by 50%. Since 2002, there has been a gradual recovery that has accelerated in the last two years, coinciding with the beginning of the institutional strengthening program for SOPTRAVI and the increase in disbursements from external loans. For 2004, spending will return to the levels at the beginning of the decade, although it will still be below the figures for the late 1990s. According to current projections, SOPTRAVI will continue to operate within fiscal constraints in coming years, and this will affect the availability of local resources. Because of this, the entity's financing program focuses on tapping external funding sources for capital expenditures. Domestic resources will be earmarked primarily for covering maintenance and counterpart requirements.

4.10 Despite the difficulties, the current trend holds sound prospects for the sector's financial sustainability. Projections show the importance of seeking new sources of financing in order to maintain adequate investment levels. One important source in this respect will be private sector participation in project finance and management through the promotion of public-private partnerships. SOPTRAVI is taking steps to facilitate this approach (see paragraph 1.35). Increased transfers of fuel tax receipts to the Highway Fund would be another alternative, although it would be dependent on the overall fiscal situation of the public sector. In this context, the operation is considered financially viable. It should be noted that counterpart funding will reach a maximum of 4.5% of annual domestic resources programmed during execution of the loan.

Table IV-2

Financial execution and projections for the SOPTRAVI Roads System (US$ millions)

ACTUAL	**2000**	**2001**	**2002**	**2003**	**2004****
Operations (*)	4.9	5.3	3.8	4.3	2.4
Investment in construction and improvements	65.7	42.6	43.8	49.9	63.1
Maintenance	36.6	35.8	29.3	39.6	37.1
Subtotal Outlays	**107.2**	**83.8**	**76.9**	**93.8**	**102.6**
Financing					
Domestic sources	55.3	55.4	31.1	63.3	51.4
IDB	14.5	8.5	7.5	15.6	12.0
Other external sources	37.4	19.9	38.3	14.9	39.2
Subtotal external sources	51.9	28.4	45.8	30.5	51.2
Subtotal financing	**107.2**	**83.8**	**76.9**	**93.8**	**102.6**

PROJECTIONS	2005	2006	2007	2008	2009
Operations (*)	2.4	2.4	2.4	2.4	2.4
Investment in construction and improvements	103.4	100.5	64.5	28.5	10.0
Maintenance	40.4	44.4	48.9	53.7	59.1
Subtotal Outlays	**146.2**	**147.3**	**115.8**	**84.6**	**71.5**
Financing					
Domestic sources	64.5	68.1	68.2	67.6	71.5
IDB	16.3	22.7	13.6	4.3	0.0
Other external sources	65.4	56.5	34.0	12.8	0.0
Subtotal external sources	81.7	79.2	47.6	17.0	0.0
Subtotal financing	**146.2**	**147.3**	**115.8**	**84.6**	**71.5**
* Includes Highway Fund and General Directorate of Highways (DGC)** Budget in execution					
Source: SOPTRAVI – Multiyear Investment Plan					

E. Development impact

4.11 The main benefits of the project will be to enhance the country's competitiveness and to improve highway integration with countries of the PPP. Better transportation conditions will mean benefits for passengers as well as for domestic and import-export freight. The project is designed to reduce transportation times and costs and to improve road safety, and it is expected that, with greater competitiveness and integration, Honduras will see an increase in private investment.

4.12 Private investment will rise given the project's improvements to the performance of the country's roads and transportation system, which will become a leading competitiveness factor for Honduras. Improved transportation conditions on the CA-5 Norte will have an impact throughout the value chain in Honduran industry, and will have a multiplier effect on other competitiveness factors, such as by making human and natural resources more accessible to production and service centers benefitted by the highway. A summary of benefits and outcomes is presented in greater detail in the preliminary logical framework included in Annex I. In preparing the logical framework, SOPTRAVI, with Bank support, held a stakeholders' workshop that included various national government authorities, the municipios, and civil society.

4.13 The project does not qualify as a social equity enhancing project or poverty-targeted investment. Nevertheless, its impacts on economic growth will contribute to the poverty reduction strategy. The project will benefit people in urban areas along the highway and will improve the competitiveness of industries in the project's area of influence, and of those that sell their products or obtain their inputs

from these towns,[7] which account for a significant part of the country's population. The project will also support industries in El Salvador and Nicaragua that ship their products over the road to the Atlantic seaports of Honduras. This regional aspect will be reinforced by the plan to link the port of Cutuco with Puerto Cortés, which will mean further increases in traffic on the CA-5 Norte by making Cutuco and Puerto Cortés significant logistical hubs for freight, handling import and export cargoes for other countries in the region, and eventually nonregional freight in transit.

F. Environmental and social management plan

4.14 The project's environmental and social aspects are consistent with national standards for environmental protection and improvement and comply with applicable Bank's policies. An environmental and social impact assessment (ESIA) prepared for the project was made public in Honduras (19 February 2004) and at the Bank's Public Information Center (25 February 2004), and includes geo-referenced thematic maps giving a visual representation of all the information. The summaries of the ESIA and background information will be posted on the web page of the Puebla-Panama Plan. In addition, an environmental and social management plan (ESMP) has been prepared, and is included in the technical annexes to the project. The project will require environmental licenses to be issued before works begin, and those licenses are now under examination by the Ministry of Natural Resources and Environment (SERNA). They should be issued during the second half of 2004, according to the project timetables.

4.15 The ESIAs identified in detail the direct and indirect environmental impacts of the project's construction, operating and maintenance stages. Those impacts are summarized in the program's ESMP and described in more detail in the ESIAs prepared. All of the identified impacts have been, or will be, mitigated, prevented or offset. To this end, the project team has designed and implemented an environmental and social strategy, including actions to ensure the timely and effective introduction of the prevention and mitigation measures identified in the ESIAs. That strategy was applied during the project preparation stage, and will continue during project execution. The project team has been closely monitoring environmental and social management of the project under the responsibility of SOPTRAVI, to which it has provided guidance to ensure that the identification and characterization of impacts could be effectively confirmed in accordance with the country's own standards and those of the Bank and the Puebla-Panama Plan. This strategy was approved by the CESI on 6 February 2004. The results of the strategy are also presented in the ESMP approved by the CESI on 28 May 2004, and are summarized below.

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[7] The CA-5 Norte links 35 population centers, including 9 cities, 9 mid-sized towns and 17 smaller towns with fewer than 2000 inhabitants. It passes through three of the country's 18 departments—Francisco Morazán, Comayagua and Cortés—which account for nearly 43% of the total population.

4.16 The environmental and social management plan (ESMP) includes: (a) an archaeological recovery program, (b) a program for social management and public consultation, (c) a right-of-way regularization program; (d) a plan for involuntary resettlement; (e) a road safety program; and (f) an environmental management plan for the construction, maintenance and operation of the project. All of these programs are based on specific measurements taken at key points along the highway, and the quantities of works and their budgets were calculated in light of the data. The programs identify the specific management responsibilities for SOPTRAVI and for the contractors and supervisors, and areas where coordination is needed with other entities and organizations. All of the foregoing is reflected in the works schedule and in each of the project's phases (construction, operation, and maintenance). The budgets for implementing all these plans are included in the project budget, shown in Table II-1.

4.17 The management and public consultation program has included the identification and characterization of the population in the project's area of influence, through specialized surveys. Additionally and in parallel, an intensive consultation and promotional campaign has been undertaken. In terms of project consultation with society, events have been held since the early stages in Tegucigalpa and communities near the project. These have been attended by national and local authorities, supported by a team of sociologists specially assigned by SOPTRAVI.[8] The objective was to open a channel of communication with the communities and answer their questions on the project and its impact and benefits. Based on information supplied by SOPTRAVI, the team believes that the outreach methods have been effective, and SOPTRAVI has reported satisfactory outcomes.

4.18 At the same time, there has been an intensive outreach campaign through the media, including radio, television, print media, and a specially developed Internet site. Outreach and publicity efforts will continue during project execution. The ESMP presents timetables, detailed milestone estimates, and the budgets required for continuing this process.

4.19 Measures have been included in the design and preparation of the project to minimize resettlement. Significant examples are the planned bypasses around the towns of Potrerillos and Pimienta and the rerouting of the original road where it passes through the town of Comayagua. These design measures have substantially reduced the number of persons affected. In fact, the project will require the resettlement of only 215 families, 9 of whom are living on the existing right-of-way, and 206 on land that will have to be acquired for widening of the

[8] Previous events include meetings with community boards in the Municipio of Villa Nueva Cortés, with senior officers of Empresa Campesina Bella Vista, with the community boards of Valle de Comayagua, the the communities of the Municipio of Villa de San Antonio (Aldea Flores, Los Mangos, San Nicolás, Caserío "Los Palillos," and Las Mercedes), in the Municipio of Pimienta Cortés, and in the Municipio of Potrerillos Cortés.

roadway. In addition, 25 businesses along the right-of-way have been identified. The resettlement plan agreed with SOPTRAVI, which is included in the ESMP, is fully consistent with Bank policy OP-710 on involuntary resettlement and compensation for people whose business activities are disrupted by a project. A resettlement plan for the entirety of each section to be contracted will be a condition precedent to signature of the works contracts. Project works will not affect protected areas, cultural heritage sites, or indigenous peoples.

4.20 The environmental management program includes investments and actions for each stage of the project. The project represents a valuable contribution to the handling of the impacts that will arise during the operating stage in the form of additional traffic and higher speeds, and that contribution will in fact go beyond the scope of the project. For example, road safety is an integral part of the project's objectives (see paragraphs 2.1 and 4.2) and will supplement efforts already underway through Bank loan 1106/SF-HO (see paragraph 1.19). These aspects are also detailed in the ESMP. As well, there is a contingency plan for dealing with the transportation of hazardous materials, and the project calls for the design of a strategic plan for regulating such shipments properly (see paragraph 1.24). The ESMPs also include a short-term action plan for handling contingencies involving accidents or the movement of hazardous cargoes over the CA-5 Norte.

4.21 The loan contract will provide for effective mitigation, prevention or compensation measures to be included in the bidding specifications and in the works contracts. As a supplement to the Bank's monitoring and supervision work as part of its administration of the operation, arrangements will be made for external environmental and social supervision of construction work, and compliance with measures for the mitigation or prevention of environmental and social impacts during the construction phase will be audited. The Bank team will review the scope of the terms of reference, to ensure that they will contribute to the environmental feasibility of the works. To meet the dual objectives of maintaining a high level of technical specialization in the environmental aspects of supervision and of facilitating decisions at the work sites, the works supervision described in section 2.8 includes a firm with specific experience in specialized environmental supervision.[9] The bidding documents and contracts for works are ready, as Table I-1 indicates (condition 7), but require the Bank's nonobjection prior to publication of the notices of tender.

4.22 During the operation and maintenance stages, SOPTRAVI and the Highway Fund will be responsible for monitoring environmental and social measures. The Highway Fund will be responsible for prevention and mitigation measures during maintenance. The ESMP stipulates the specifications that the Highway Fund is following in its current activities, and which must be maintained in the future.

[9] "Specialized" experience means that at least one of the firms involved in supervision has in the recent past performed a contract exclusively for the environmental supervision of road works.

SOPTRAVI will be responsible for road safety and for the regulation and control of hazardous cargoes. In addition, as a result of implementation of the ESMP, there will be better coordination and communication between SOPTRAVI and other national and local entities that must deal with contingencies involving hazardous substances.[10]

4.23 **The environmental institutional structure**. The organizational structure of the Republic of Honduras includes the Ministry of Natural Resources and Environment (SERNA). This Ministry was created in 1993 at the time the Environment Act was promulgated. It is responsible for enforcing environmental legislation in Honduras, and for formulating and overseeing the implementation of national environmental policies in government and private-sector plans and projects. It is also required to issue an environmental report before any authorization, concession or operating permit is granted for productive or commercial undertakings or for public or private projects. Other powers include controlling the emission of all types of pollutants and controlling all activities that are deemed to pose a serious risk to health or the environment.

4.24 SOPTRAVI has an Environmental Management Unit (UGA) that is responsible for environmental oversight, control and monitoring of capital projects under SOPTRAVI coordination. The UGA is also responsible for obtaining environmental authorizations and licenses from the SERNA for all projects undertaken by SOPTRAVI. As part of project preparation, SOPTRAVI agreed to change its organizational structure, to raise the UGA to the hierarchical level of a SOPTRAVI general directorate, reporting directly to the Minister's office. Formally making this change to SOPTRAVI's structure will be a condition precedent to the first disbursement.

4.25 The project involves work sites in various municipalities. Each of those municipalities has a Municipal Environmental Unit (UMA) that works closely with SERNA. Their task is to exert effective environmental control and to see to the enforcement of environmental legislation at the municipal level. Municipalities are not allowed to issue approvals or permits for construction projects without a prior environmental authorization or license from SERNA.

G. Risks

4.26 As with most road projects, the greatest risk in this project is the potential for cost overruns. The engineering studies have mitigated this risk by eliminating any uncertainties as to the required budgets and quantities of work. Progress was also made during project preparation on rights of way, to ensure they are in place and

[10] Those entities include municipal governments, the standing committee for contingencies, shippers of this type of cargo (i.e. the chemical and petroleum industries), and the hazardous substances unit of the Tegucigalpa fire brigade.

that the widening and improvement works can take place on time. It is estimated that approximately 255 properties will have to be purchased in certain zones along the highway route, and the cost of these properties has been estimated at 102 million lempiras (US$5.6 million).

4.27 Another risk inherent in any road project relates to the subsequent maintenance and sustainability of the investments. This risk has been mitigated to the extent that the Government of Honduras has followed a policy of earmarking increasing resources for the Highway Fund. The loan contract will include provisions for maintenance in accordance with generally accepted technical standards, and for an operations and maintenance plan designed to cover the highway's useful life, identifying the activities to be undertaken and resources and funding required. The operations and maintenance plan will clearly distinguish between the responsibilities of the Highway Fund and those of the concessionaire that takes over the public-private partnership for the CA-5 Norte.

4.28 The risk that SOPTRAVI will lack the institutional and execution capacity to administer the Honduran highway system has been substantially overcome, with Bank support, through a major structural reform of the ministry, which now, moreover, has ongoing management support from a specialized firm. In addition, the GGPE will be strengthened in its ability to handle the bidding processes for the project by contracting specialized and independent evaluators, with funds from the project. To contribute to institutional sustainability, the project's execution structure calls for retaining the project management tools developed under operation 1106/SF-HO, which have now been formally incorporated into the organizational structure of SOPTRAVI (see paragraph 1.13).

LOGICAL FRAMEWORK

NARRATIVE SUMMARY	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
Goal			
To make Honduras more competitive and support the process of integration with countries of the Puebla-Panama Plan (PPP)	Increased output and exports. Improvement in the global competitiveness ranking.	Foreign trade and production statistics and surveys from INE. Global competitiveness ranking from the World Economic Forum.	The macroeconomic and business environment is favorable to project objectives.
Purpose			
To improve transportation conditions on highway sections from the beginning to the end of Valle de Comayagua (T1); and from Villanueva to La Barca (T2); and to increase safety for passengers and merchandise traveling over these two sections and over the PPP highways in Honduras.	1. Six months after work on the two sections is completed, annual average daily traffic (AADT) on the CA-5 has risen by 4% per year over the 2003 base year. 2. Once improvement work on the two sections is completed, travel time is reduced by 24% on T1 and 26% on T2 with respect to the 2003 base year. 3. At the end of the project, average vehicle operating costs have been reduced as follows: for T1 (13% autos, 20% buses and 14% trailer trucks) and for T2 (9% autos, 16% buses and 7% trailer trucks) below base year 2004. 4. At the end of the project, the number of accidents on PPP highways in Honduras and on the improved sections has been reduced by at least 5% below the base year 2004, measured by accidents/veh-km). 5. At the end of the project, the number of deaths from accidents on the improved sections has been reduced by at least 8% below the base year 2004, measured by	1. Traffic report of UPEG – SOPTRAVI. 2. Roughness reports from UPEG – SOPTRAVI. 3. Reports of the Accidents Monitoring System of the National Traffic Directorate.	1. The operations and monitoring program for the two sections is adopted and the necessary funding is provided. 2. Control over weights and dimensions of vehicles is in operation on the improved sections.

NARRATIVE SUMMARY	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
	fatalities/veh-km. (See Table III-2.)		
Components			
1. Greater carrying capacity and better safety conditions on two sections of the CA-5 Norte highway	1. 48 months into the loan contract, 50.2 km of highway have been widened from two lanes to four lanes or upgraded, and meet the road safety specifications of the original designs 2. At the end of the project, 80% of investment in construction and improvement works undertaken by SOPTRAVI reflects provisions in the Multiyear Investment Plan.	1. Final acceptance report for the works. 2. Inspection reports. 3. Semiannual execution reports.	There are no events of force majeure that would lead to implementation delays or cost overruns. Counterpart funds are provided on time.
2. Better safety conditions on PPP highways in Honduras.	1. At the end of the project, 350 km of PPP highways have signage that meets international standards. 2. The design of projects completed by SOPTRAVI within the year immediately prior to project completion meets the specific recommendations from the road safety pilot project undertaken as part of loan 1106/SF-HO.		

BIDDING AND PROCUREMENT PLAN							
.	**Amount US$000**	**IDB**	**Gov't of Honduras**	**Cofinancing**	**Method**	**Prequali-fication**	**Publication of SPN**
Construction of works							
Upgrades and widening: Beginning to end of Valle de Comayagua							
Segment I	8,700	90%	10%	0%	ICB	Yes	2004
Segment II	15,300	90%	10%	0%	ICB	Yes	2004
Upgrades and widening: Villanueva to La Barca							
Segment I	11,000	100%	0%	0%	ICB	Yes	2005
Segment II	12,900	53%	0%	47%	ICB	Yes	2005
Road safety on PPP routes	1,500	100%	0%		LCB	No	2004
Procurement of goods							
Equipment for GGPE	50	90%	10%	0%	LB	No	2006
Consulting services							
Supervision of upgrades and widening: Beginning to end of Valle de Comayagua							
Segment I	1,100	100%	0%	0%	ICB	Yes	2004
Segment II	1,100	100%	0%	0%	ICB	Yes	2004
Supervision of upgrades and widening: Villanueva to La Barca							
Segment I	1,050	100%	0%	0%	ICB	Yes	2004
Segment II	1,050	100%	0%	0%	ICB	Yes	2004
Firm specialized in project management (category 1.2, Table II-1)	2,400	40%	60%	0%	ICB	Yes	2004
GGPE coordinator (category 1.2, Table II-1)	160	40%	60%	0%	LCB	No	2004
Specialized bid evaluation services	100	50%	50%	0%	LB	No	2004
Financial audit (category 1.1, Table II-1)	150	100%	0%	0%	LCB	No	Annual
Environmental & social audit (category 1.1, Table II-1)	200	100%	0%	0%	ICB	Yes	2004

ICB = International Competitive Bidding
LCB = Local Competitive Bidding
LB = Limited Bidding

Limits for the procurement of goods and consulting services (US$ equivalent)			
	Works	**Goods**	**Consulting services**
International Competitive Bidding (ICB)	Over $2,000,000	$250,000 or more	Over $200,000
Local Competitive Bidding (LCB)		$50,000 to $250,000	$50,000 to $200,000
Limited Bidding, Price Shopping, or Short List		Under $50,000	Under $50,000
Figures are in U.S. dollar equivalents at the date of each budget.			